



SOLENOID PLUNGER AND HARNESS FIELD REPLACEMENT

199K0025.



Installation and servicing of Danfoss Turbocor® compressors by qualified and product trained personnel only. Follow these instructions and sound refrigeration/electrical/servicing practices relating to installation, commissioning, maintenance, and service.

<p>Consult the appropriate Danfoss LLC Service Manual on www.turbocoroem.com for detailed service instructions.</p>	<p>Never power compressor without covers in place and secured.</p> <p>Removing the mains input cover will expose you to a voltage hazard of up to 853VDC. Ensure the mains input power is off and locked out before removing cover.</p> <p>Before removing top cover, wait at least 20 minutes after isolating AC power to allow the high voltage capacitors to discharge.</p>	<p>Always wear appropriately rated safety equipment when working around equipment and/or components energized with high voltage.</p> <p>This equipment contains hazardous voltages that can cause serious injury or death.</p>	<p>Recover all refrigerant from compressor in accordance with local codes and ensure pressure is fully vented before the removal of refrigerant containing components.</p>
--	---	---	---

1 - Introduction

Please refer to our Service Manual for further details regarding the replacement of the plunger and harness.

We have made the **TT/TG Series Service Manual** available to anyone. To access the manual, you may scan the applicable QR code below or you may go to our DTC website at www.turbocoroem.com. At the bottom of the page there is a Section named "Categories" that includes various menus including one for Manuals.

Refer to the applicable QR code below to download the TT/TG Series Service Manual.

English



Chinese

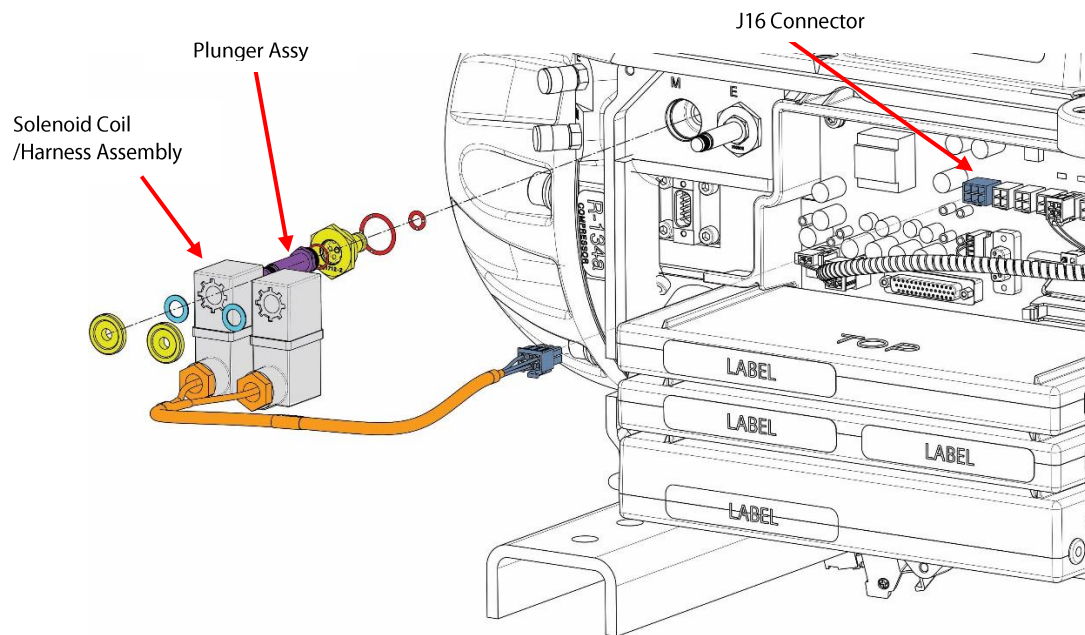


2 - Solenoid Plunger and Harness Removal

Please refer to the TT/TG Series Service Manual regarding isolation of power and refrigerant!

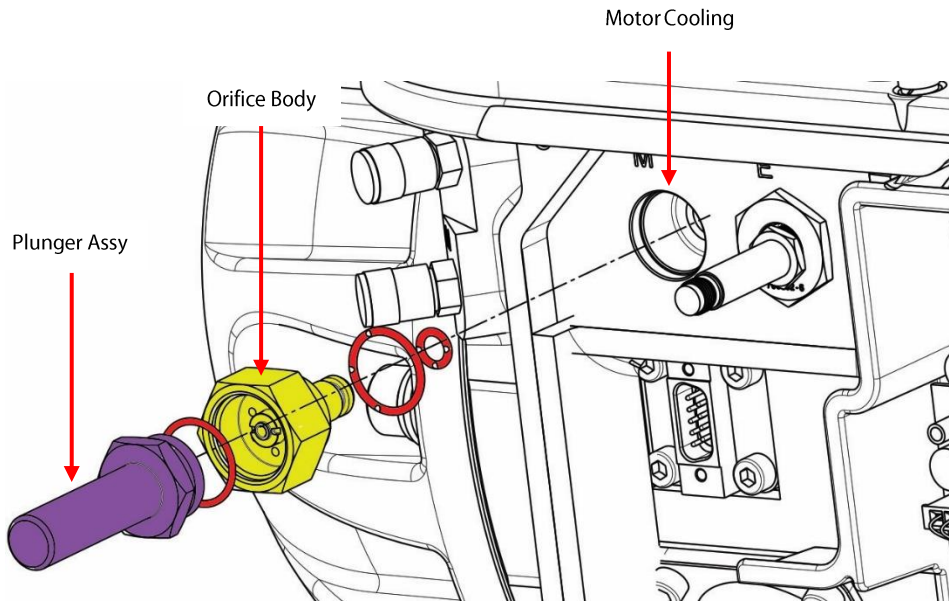
1. Isolate compressor power.
2. Isolate the compressor and recover the refrigerant according to industry standards.
3. Remove the Service Side Cover.
4. Disconnect the Solenoid Coil J16 connector from the Backplane. Refer to Figure 1 – Plunger and Harness Removal for this and the following four steps.

Figure 1 – Plunger and Harness Removal



5. Remove the Solenoid Coil Retaining Nuts and the beveled washers.
6. Remove the Solenoid Coils.
7. Remove the left Plunger Assembly (labeled M on the main compressor housing) using a six-point deep socket.
8. Remove the Orifice Body from the left side using a socket. Refer to Figure 2 – Orifice Body Removal.

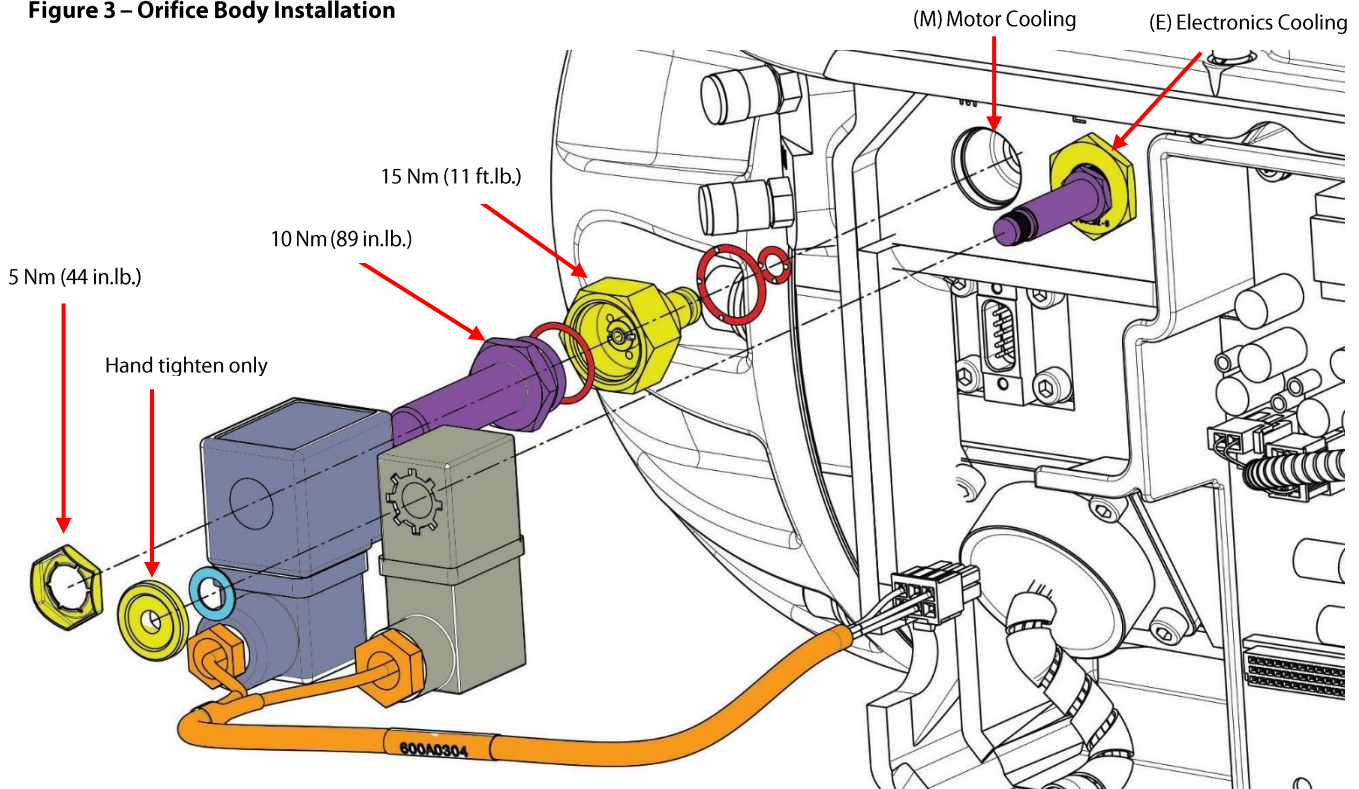
Figure 2 – Orifice Body Removal



3 - Solenoid Plunger and Harness Installation

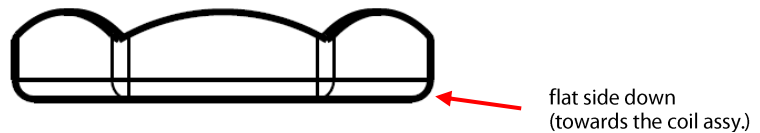
1. Use a lint-free cloth to ensure that all components and threads are clear, clean, and oil free.
2. Lubricate the new O-rings and install them on the Orifice Body. Refer to Figure 3 – Orifice Body Installation for this and the following six steps.

Figure 3 – Orifice Body Installation



3. Install the new Orifice Body into the “M” cooling passage.
 4. Tighten the Orifice Body with a socket and torque to 15 Nm (11 ft.lb.).
 5. Lubricate the Plunger Assembly O-ring.
 6. Check that the plunger moves freely by exercising action of spring by hand ~3 cycles.
 7. Insert the Plunger Assembly into the Orifice Body and engage the first few threads by hand.
 8. Tighten the Plunger Assembly using a six-point deep socket and torque to 10 Nm (89 in.lb.).
 9. Leak test and evacuate compressor in accordance with standard industry practices.
 10. Install the Solenoid Coils (1 new) onto the Plunger Assemblies in the correct orientation with the coil marked “M” on the left and the coil marked “E” on the right.
 11. Install the Beveled Washer and Solenoid Retaining Nut (round) to secure the **Electronics** Cooling Solenoid Actuator Coil. Refer to Figure 3 – Orifice Body Installation.
- NOTE:** The round nut should be hand tightened only (do not use pliers).
12. Install the new Solenoid Retaining Nut (flat side down) to secure the **Motor** Cooling Solenoid Actuator Coil. Refer to Figure 3 – Orifice Body Installation and Figure 4 – New Solenoid Retaining Nut.

Figure 4 – New Solenoid Retaining Nut



NOTE: The new hex nut replaces the round retaining nut. Refer to Figure 3 – Orifice Body Installation for the torque value for the new hex retaining nut.

13. Reconnect the Solenoid Coils to J16 on the Backplane.
14. Install the Service Side Cover.
15. Return the compressor to normal operation.

... CAUTION ...

All removed components must be discarded in accordance with local regulations. Reuse of any components on this or another compressor could void the warranty.

4 - Kit Contents

Note: Any part numbers included in this Kit Contents section are internal part numbers only. Please refer to our Spare Parts Manuals for any kit part numbers.

QTY	Part(s) Description	Picture(s)
1	COMPRESSOR COOLING CABLE/COIL ASSY	

1	VALVE - ORIFICE SOLENOID (2.5 mm) – 600A0302	
1	O-RING - 902075	
1	O-RING - 901864	
1	PLUNGER - LARGER VALVE – 600A0301 (includes O-ring)	
1	NUT SOLENOID VALVE – 600A0372	
1	WASHER BEVELED DISC. SOLENOID VALVE Ø13.8xØ8.7x0.5 – 900562	
1	NUT-SPECIAL-SOLENOID VALVE – 900561	
1	LUBRICATION-SUPER-O-LUBE-2G – 900578	

5 - List of Changes

Revision	Date	Description of Change
A	5/8/2024	Draft
B	7/3/2024	Added instruction number Added spare part kit number Updated images and made several changes to the steps Updated the Kit Contents in Section 4
C	8/5/2024	Added "lint-free cloth" in first installation step Added Caution statement at the end of the Installation section Added Figure 4 Inverted cable/coil image in Kit Contents table

Danfoss LLC can accept no responsibility for possible errors in catalogues, brochures, and other printed material. Danfoss LLC reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.